



Attachment

Remarks/Arguments

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1. Applicant's election of Group I claims

In the applicant's response dated Oct.22, 2002 the applicant did elect for Invention Group I classified in class 280, subclass 727+. As the applicant understands, this class and subclass read as follows:

280 land vehicles

29 Vehicles provided with supporting wheels to engage the surface over which the vehicle moves

727 Devices adapted for attachment to various parts of a vehicle to perform some special function.

**Based on this classification the amended claims 27 – 69 drawn to a main frame and base frame combination for carrying a pack and not for a carrying pack belong to the same group as group I.**

Firstly, it is on the base frame of the ground carrier where wheels are attached. Secondly, they do not belong to another group such as class 224 because the invention is not and does not include a pack. The drawings only show how a pack can be mounted on it. None of the applicant's claims contain a claim to a system comprising a specific storage element and a holding frame. Fresco, the main reference cited in the OA sent 01/02/03 was classified under class 224 indicating that there is probably an inherent overlap in the classifications in question. Several references cited actually are classified under more than one class and subclass. Some of the notable ones are: Nakatani (Pat.# 4,362,307) classified under classes 280 and 224; Hung-Hsin (Pat.# 5,374,073) classified under classes 280, 190, and 297; Cheng (Pat.# 5,161,811) classified under classes 280 and 297; and Holtz (Pat.# 4,523,773) classified under classes 280, 16, and 403. Based on these cases, it is apparent that a patentable invention should not be limited to only a one-class classification. **Therefore, binding the applicant to only one class for an invention that can inherently be covered by many classes lacks sufficient justification.** Also, although claims 1-26, may at first seem a lot already, they are all drawn on only a single independent claim. This is inadequate and is not commensurate to the volume of ramifications presented in the application.

2. Claims 27-47, 50-59, 69-74 withdrawn from further consideration

The original claims 27-47, 50-59, 69-74 have been amended in the applicant's response of Oct. 22, 2002. While they may originally have been inadvertently broadly drawn to include applications beyond those for pack carriers, the amended versions are all drawn towards the elected Invention Group I. These main frame and base frame combination claims incorporate significant specific and detailed structures that also distinguish the invention as novel and unobvious over the prior art.

For instance, claim 50 is dependent on claim 12, therefore should not be withdrawn from further consideration.

Also for instance, in the case of the amended claim 36, the additional padded back support element works in cooperation with the main frame of a ground carrier. It is indispensable if the carrier is to function in the backpack mode. It actually belongs to the same class and subclass as the group I claims because it is a device attached to a vehicle to perform a special function. Some patent inventions do have elements like high chair food trays, shoulder harnesses, handles and shoulder straps, waist straps, and even wheels that could be detached or removed without tools or with the use of a simple pair of pliers. With the exception of the high chair food tray, these detachable elements have not been claimed separately because they are not unique, novel and unobvious – not because they could be detached. While the amended claim 36 (now claim 134) is also drawn towards a padded support that is integral (therefore not detachable) to a main frame, the detachable option offers more value to the consumer, therefore is more desirable. No prior art in the same classes as the applicant's invention has taught towards the kind of padded back support described. Whatever other uses can be found for them are irrelevant because they are not claimed. If other uses not already addressed or satisfied in the prior art are found for this padded support such as those presented in the application, they should only be construed to further emphasize the usefulness and unobviousness of the present invention.

**Considering the volume of material covering the many ramifications and embodiments possible presented in the application, the applicant has incorporated claims 27 to 69 into the new group of claims 101 – 142, only five of which are independent, for reexamination and allowance.** These five independent claims are linked by the fact that they are all drawn toward a pack carrier having unique and unobvious features that all contribute individually and conjunctively to customize a pack carrier to the needs of the consumer, hence the title customizing pack carrier. The customizing ground pack carrier of the present invention works like a multi-purpose tool set – the basic tool being the main

frame for carrying a pack, and the specific attachments to work in conjunction with the basic tool to perform a multiplicity of tasks being the strategically located three releasable retainers, the extendible base, the padded support and the inclinable backrest with seat. The functions of these "attachments" have never been addressed adequately before in prior art. No ground pack carrier in prior art is able to satisfy the same needs and wants as the ground version of the present invention. Many of the claims have been amended to overcome rejection based on 35 USC 112. **Figure and paragraph reference numbers for each claim are provided in Attachment A to facilitate the examination process.** Paragraph numbers are based on the pre-grant publication US 2002/0043544A1, the relevant text portion of which is also attached as Attachment B.

### 3. Missing legible copy of each U.S. and foreign patent listed in the IDS

Shortly after the application was filed, the applicant made a phone inquiry (703)305-9177 regarding pre-grant publication and sending follow-up copies of references. She was informed that copies for foreign patents are required but not for U.S patents. **If that is not the case, the misinformed applicant respectfully apologizes and submits that the enclosed copies of the references cited in the IDS be accepted for consideration.**

### 4.and 5. Claim rejections based on 35 USC §112

**The applicant has amended the original claims 1-26 as well as many of the appended ones to define the invention more particularly and distinctly.**

Claim 1 is rewritten as claim 101 to recite definite structure with regard to the main frame face and retaining means and their locations. The dependent claims following claim 101 recite the structure in further detail. The frame face of size and shape adapted to have a pack secured thereon means that the frame supporting the pack can be square, rectangular, triangular, hexagonal, etc. but large enough to secure a pack. The figures in the application show what the preferred general size and shape are.

The functional and operational language are necessary as part of a means plus function method of reciting structure. Paragraph 6 of section 112 of the patent laws (35 USC 112) states "An element in a claim for a combination may be expressed as a means or step for performing a specified function without the recital of structure, material, or facts in support thereof, and such claim shall be construed to cover the corresponding structure, material, or acts described in the specification and equivalents thereof." The specifications do describe

several options of workable structures ramified from the main idea. **The only way to cover them all without drawing separate claims for each one of those means and for each possible combination is to use this means plus function and a Markush group.**

**While the dependent claims recite the structures in further detail, the main frame as claimed in claim 101 is already a completely operative device based on paragraph 6 of section 112 of the patent law (35 USC 112).** It can sufficiently hold any already commercially available pack having attachment parts at the approximate location of the retaining points. It will certainly hold an ordinary backpack in place by its own handle and shoulder straps. And even if the already commercially available pack does not come with all the attachment parts, the invention has made the pack workable still because it can accept a very simple flexible loop type of attachment parts that is also easy to install.

The main frame described above can securely hold a pack, therefore it can now be integrated into various wheeled means for transport purposes. The main frame can be a pack carrier on ground when integrated into a telescoping handle assembly with wheels. It can become a rack/pack carrier for a bike when integrated with the bike's horizontal rack or with a recumbent bike's backrest. And finally, it can become a pack carrier for scooters. The idea is simple yet not obvious because despite the popularity that backpacks have been enjoying for decades, inventors still have not addressed their use for their inventions. They all teach away from it. Some teach towards the use of expensive packs customized in size with attachment parts to fit their frames. Others teach toward the use of elastic bungee cords to anchor their load. Still others teach toward permanently riveting a backpack onto a frame with a telescoping handle assembly. Furthermore, no prior art has yet taught that their main frame idea (which includes the retaining means) can be adaptable to become a bike rack or a pack carrier for scooters.

Two additional backpacks can even be carried, each astride the back wheels of a bike like saddle packs. This is mentioned in the scope and ramifications section of the application and depicted in Fig.55-D below. This idea of having two more main frames each astride the wheels of a bike is not anticipated or obvious over prior art for the same reasons why Woolf, Nutto, and Fresco all got patents for their inventions.

As to the issue of the claims being narrative in form, the applicant has used a 3-part method (preamble-elements-interconnections) plus optional whereby clauses because it is easier to read and understand. Fresco, Lin, Woolf and others used the same 3-part method. The optional whereby clauses are there simply to help emphasize the value and use of the

invention. They might appear to be narrative and relatively informal because of this. However, they should have no bearing on the technical validity of the claim.

**6. and 7. Claim Rejections based on 35 USC 102(b) and 103(a) as anticipated by and obvious over Fresco, 5609,278 due to indefinite structure set forth in the claims**

Based on the structures set forth in the amended claims, background, specifications, drawings and scope and ramifications of the application, **the invention is not anticipated by or obvious over Fresco for the following reasons:**

- a) **Fresco's design and operation hinges on storage elements that are fixed in terms of size and shape.** In 1997 (Fresco's patent issue date) backpacks have already assumed a common standard shape and have been outfitted with handles and shoulder straps like the ones we see today. If two of these standard backpacks were applied to Fresco instead of his customized ones, the top backpack would be carried upside down. Furthermore, the length of a standard backpack is probably close to that of only one of his. It would certainly look ridiculous. Knowing Fresco, one would very unlikely come up with the applicant's invention. Fresco does not suggest the use of a single commercially available storage element. It teaches the use of a dual customized pack of specific dimensions and equipped with wheels. It presents a very general description of attachment means both in the text and in the drawings. Backpack straps do not fall even within this general description. Fresco does not suggest even slightly that his frame can be adapted to standard backpacks that already have shoulder straps but no wheels.
- b) **Fresco suggests that storage elements that are set up in the backpack mode can also be wheeled on ground but only after further manipulation and reorientation of the main frame.** The applicant's invention teaches away from this idea because no further manipulation is necessary to shift from backpack to ground mode.
- c) When installed on a bike, Fresco can be done in only one way. The storage elements are carried astride a vehicle wheel. **It does not imply or teach that the frame can be mounted on a level above the back wheels as on a rack.** Nor does it teach that the frame idea can be a bike rack itself. This is because Fresco's C-shaped frame is too bulky to be one. The uni-planar nature of the present invention's main frame allows it to serve as a regular rack for carrying other things. The present invention could also even be installed astride the bike wheels if desired as shown in Fig. B.

- d) **The releasable retaining means of the present invention are significantly different and more defined.**
- e) **The notion of adjustably approximating the location of attachment parts already on packs is not even mentioned in Fresco.**
- f) If the present invention is anticipated and obvious over Fresco because his articulated backpack can also be wheeled and mounted on a bike, this is equivalent to Woolf being anticipated by Buel who in turn was anticipated by Talbott or to Fresco being anticipated by Woolf who in turn was anticipated by Nutto.
- g) **The applicant is not provided with sufficiently convincing arguments as to the summary rejection of all original claims 1-26 under 35 USC 102(b) and 103(a).** Several dependent claims recite definite structures that are certainly novel and unobvious over Fresco and other prior art. Many of the claims have been rewritten mainly to overcome rejections based on 35 USC 112.
- h) The amended claim 101 and its dependent claims 102 to 124 now distinguish the invention apart from all prior art rendering it novel and unobvious for the following additional reasons:
  - a) **The present invention addresses a broader environment.** The main frame idea can be adapted to ground wheeled means, upright and recumbent bikes, and scooters. The main frame that is adapted for ground use do not necessarily have to be structurally the same main frame for bike use. Other inventions that are adaptable to ground and bike (not scooter) use the same frame for both applications and in an orientation entirely different from that of the present invention.
  - b) **The present invention addresses a different problem.** It provides a very economical and attractive alternative means of transporting load. Since it is adaptable to any conventional pack, particularly the popular backpack, a consumer with modest financial means can avail of the benefits of having a neat looking pack and carrier combination comparable to the expensive ones currently available only to a select market.
  - c) **The type, quantity, and location of the retaining means are different.** Lin and others teach towards retaining means that are too specialized, limited, and exclusive only to their respective luggage systems. The releasable retaining means of the present invention are more user friendly. An ordinary consumer

can easily device and install by himself/herself workable attachment parts (like those taught in the present invention) to the pack of his choice(that is not already a backpack) and come up with a neat unified carrying system. This allows for even more customizing possibilities for the consumer.

- i) **The method claim 125 is derived from claim 101.** The method of providing the strategic releasable retainers on a frame, incorporating the frame to various wheeled means, taking any pack of the user's choice, providing attachment parts where there are not any or if it is not a backpack, and finally coupling the attachment part to their respective retainers is a very simple idea yet novel and unobvious for the following reasons:
- a) the strategy of incorporating the basic main frame with retainers into a ground carrier, upright and recumbent bikes and scooters has never been taught before in prior art,
  - b) the final user or consumer partakes in customizing his carrier to his desires and come still come up with a neat unified pack and carrier combination comparable (if not better) to the expensive manufactured frame and luggage systems in prior art, and
  - c) when applied to the ordinary backpack, the method unexpectedly produces a very appealing pack and carrier combination.
- j) The amended main frame and base frame combination of independent claim 126 and its dependent claims 127 to 131 are also novel and unobvious. **It has a base that extends automatically or manually by means that are not shown before in prior art.** The topside extension in the front section of the base helps to anchor the backpack onto the carrier by preventing the backpack from swaying side to side. It also helps to determine the base extension needed in order to accommodate the depth of the pack on it. Finally, it works unexpectedly again to effect an automatically extendible base, thus, stabilizing the loaded carrier at all times. Hung-Hsin and other luggage carriers already in the market do teach towards an extendible base but it is one that does not have a topside extension, thus less functional. At these times when consumers especially kids assign a high value to convenience and the ease of operation of any gadget, an automatically extendible base becomes very desirable. The fact that no prior art in the long history of pack and luggage carriers has taught towards this idea makes the present invention even more novel and unobvious, thus patentable.

- k) As discussed earlier in #2, the amended main frame of independent claim 134 and its dependent claims 133 to 136 are also novel and unobvious because there is no pack carrier in prior art that has or teaches towards the kind of padded back support presented in the application. Swetish (Pat.#5,984,157) teaches a shoulder support structure that can be used with any luggage but not one that excludes shoulder straps nor one that can be used in conjunction with a main frame of a pack carrier. Scicluna (Pat.# 5,984,154) teaches of a back padding that is affixed permanently to a pack that is in turn fixed permanently onto a wheeled pack carrier. The padding is almost never worn out even when the pack itself is already worn to shreds. This almost like new pack component and probably the still usable pack carrier that is fixed to the pack all get discarded wastefully with the pack. **If the present invention is obvious (which it is not), manufacturers of these wheelable backpacks should have adapted the padded support idea of the present invention by now in order to save valuable resources.** Instead, they try to make up by using a thinner layer of padding material and by reducing the total area covered by the padded material. This makes the wheelable backpack a pain to use in the backpack mode. The consumer's well being is sacrificed. If a padded back support has a longer usable life, responsible manufacturers would not hesitate to equip it with thicker padding and more customizing features like pockets, lumbar supports, waist belts, a seat and the like to make the pack carrier even be more comfortable and functional to use. The main frame of a pack carrier having the particular kind of padded support taught in the present invention is novel and unobvious, therefore patentable over the prior art.
- l) The amended main frame and base frame combination of independent claim 137 and its dependent claims 138 to 142 are also novel and unobvious because again there is no pack carrier in prior art that teaches towards inclining the main frame of a pack carrier towards its base to be used as an inclining backrest. The hinge connection presented serves a dual function. It adjustably inclines and completely folds the main frame and base frame towards each other for compact storage. With just the addition of a simple inexpensive seat the utility of the pack carrier is doubled. Cheng (Pat.# 5,161,811) and Hung-Hsin (Pat.# 5,374,073) teach toward using the main frame as a backrest but the main frame cannot be inclined, thus less comfortable, and is used with an above floor level rigid seat component – not the economical, resilient, and flexible floor seat used in conjunction with the already installed padded support of the present invention.



Furthermore, Cheng and Hung-Hsin are used for hauling heavy luggage and are never meant for use in the backpack mode. Even if shoulder straps are added, imagine the back padding required to overcome the discomfort posed by the rigid seat components if they are used in the backpack mode. Their seats are meant for long waits in airports. The present invention's alternative means of providing a seat with a pack carrier has never been taught in the long history of pack carrier inventions. Backpack users are mainly school kids who just love to sit, even without a backrest, on the floor or outdoors on the grass to read, to visit with friends or to watch sports. **The present invention provides these users not only a means to transport their backpacks; it also gives them a means to sit comfortably, thus promoting good posture, while doing the kinds of activities they enjoy most and with their belongings close behind them to boot.** No pack carrier in prior art has taught toward this idea and its advantages. A pack carrier with any kind of main frame, any kind of base frame and an inclining main frame and base frame connection such as that taught in the present invention is novel and unobvious, thus patentable.

#### 8. Non-applied References Cited

The applicant has reviewed the references cited. Woolf, Lin, Nutto, Buel, Murphy, Jserng, and Talbot all teach away from the present invention because their retaining means are directed towards specific custom-made storage elements whether they are retained on the main frame temporarily or permanently. The retaining means are not only different – they are also arranged in a different manner within the frame to correspond with those on the customized storage elements. None of them hint toward any ordinary multi-purpose pack available to the ordinary consumer such as the backpack.

Lin's invention is directed toward a storage element that is too heavy to carry in the backpack mode even if shoulder straps were included. Woolf's, Buel's, Talbot's, and Nakatani's inventions are all directed toward storage elements hung on a frame and the frame is carried via the shoulder straps attached to it.

Even Johnston's knapsack is equipped with special bike rack retaining means, thus, teaching away from using the already available handle and shoulder straps.

Holtz's, Kazmark's, Cheng's, and Hung-Hsin's luggage carts teach away from using them for anything other than a multi-purpose dolly for ground use with luggage retained by

elastic cords and the like. Also, this luggage is of the sort that is too heavy to carry on one's back even if shoulder straps were included. This luggage is also too heavy to carry on a bike rack even if the main frame were incorporated into a bike rack.

Based on the above considerations, the references cited do not anticipate the present invention or render it obvious.

**9. Applicant Request To Include Additional Drawings**

The applicant requests that Figs. 55-D and 55-D' shown earlier be added. Fig. 55-D does not constitute new matter because the idea is already introduced in paragraph 1053 in the scope and ramifications section of the application as follows: "Also, the main frame for pack carriers on bike can be mounted by some means to either side of the bike wheels, one for each side if desired." The figure further emphasizes the versatility, novelty and usefulness of a simple yet unobvious idea.

**10. The Applicant Requests The Inclusion of Relevant Material in the Conclusion, Ramifications and Scope of Invention**

This idea of framed elongated members is not new matter because it was presented in the original claims 11 through 16 and because it is only a broadened version of what is presented in the specifications. Since anyone skilled in the art can figure out how to implement the idea based on the other drawings and specifications, the applicant did not deem it necessary to include further details in the specifications. The applicant submits them for inclusion in the Conclusion, Ramifications and Scope section of the application.

For the same reasons, the applicant requests that the idea for the broad use of already commercially available state of the art fastening means earlier presented in the original claim 4 be included in the same section.

**11. Conclusion and Conditional Request for Constructive Assistance**

Therefore, it is submitted that patentable subject matter is clearly present. If the examiner agrees but does not feel that the present claims are technically adequate, the applicant respectfully requests the constructive assistance and suggestions of Examiner pursuant to M.P.E.P. 706.03(d) and 707.07(j) in order that the undersigned can place this application in allowable condition as soon as possible and without the need for further proceedings.

## ATTACHMENT A

## Reference Figures and Paragraphs for Claims 101-142

Claim No.	Figure No.	Paragraph No.
101	1 and up	
102	1 and up	
103	a) 10-A to 12-E4R'	0331 - 0413
	b) 28-A to 31-D	0564 - 0622
	c) 13-A to 13-B3	0432
	18 and 19	0433
	d) 35-A to 35-A'	0661
104	a) 10-A to 10-B''	0317 - 0333
	b) 11-A to 11-B''	0334 - 0377
	c) 12-A to 12-D	0378 - 0413
105	12-A to 12-D	0378 - 0413
106	23-A to 29-C	0564 - 0600
	(broadened claim 107)	
107	a) 28-A to 28-D	0564 - 0585
	b) 29-A to 29-C	0586 - 0600
108	30-A to 30-C	0601 - 0612
109	31-A to 31-D	0613 - 0622
110	broadened claims 111-117	
	also includes Figs. 54-A	
	to 55-C'	self explanatory

111	all figures for ground and bike carriers	
112	33-A to 55-C' all figures of bike racks	
113	all figures for ground carriers	
114	I. 7-A to 7-CC	0437 – 0454
	II. 7-D	0455 – 0472
	7-D'	0473 – 0483
	III. 7-E	0484 – 0491
	others (no figures)	0492 – 0499
115	52-M	self explanatory
116	8-A to 8-C4	
117	3-A	0261 – 0262
		0422 – 0425
	6	0268
118	broadened claim 119	
119	60-A to 65-C	0985 – 1006
	66-A to 66-C	1007 – 1022
120	33-A to 55-C all figures for bike carriers	self explanatory
121	broad version of	

	ground and bike pack carriers	self explanatory
122	25-A to 26 33-A to 46-B	0544 – 0557 0656 – 0824
123	1 9-A and 9-B 56-A to 59-E'	 0291 – 0314 0925 – 0984
124	1 a) 37-A to 37-B' b) 50-A to 50-E c) 51-A to 51-D3 d,e,f) g) 51-E to 51-E'' h) 51-F to 51-F''	 0687 – 0689 0834 – 0841 0842 – 0849 self explanatory 0850 – 0865 0866 – 0867
125	method claim equivalent of claim 101	
126	broadened claims 127 to 133	
127	9-A and 9-B  15 59-A to 59-E'	0294 0970 – 0971 0291 – 0312 0970 – 0984
128		self explanatory
129	1 and 15	0311 – 0312 0520

130	broadened claims 131 & 132	
131	56-A to 56-E'	0927 – 0947
132	57-A to 57-E'	0948 – 0955
133	58-A to 58-E'	0956 – 0969
134	broadened claims 135 & 136	
135	18 and 19	0432 – 0433
136	23-C	0414 – 0416
137	broadened claims 138 to 142	
138	21-B 23-A	0502
139	23-B	0503
140	23-B	self explanatory
141	a) 21-A and 21-B 22-A to 22-C' 24-A to 24-C' b) see claim 142 c) 20-C to 20-C' 20-D	0506 - 0525 0526 – 0543  0504 0505
142	25-A to 26	0544 to 0557